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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,038	01/28/2002	Toshiro Hayakawa	Q68258	2257

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EXAMINER

NGUYEN, TUAN N

ART UNIT PAPER NUMBER

2828

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,038

Applicant(s)

HAYAKAWA, TOSHIRO

Examiner

Tuan N Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ ~~Claim(s) 8 and 9 is/are objected to.~~
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAIL ACTIONS

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-9 are rejected under 35 U.S.C 112, second paragraph, as being indefinite, vague, and confusing for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, **for example**.

3. Claim 1 recites a "light source apparatus equipped with a GaN semiconductor light emitting element, comprising a spatial filter for eliminating stray light from the light emitted from the GaN semiconductor, wherein stray light amounts to 20% of less of the total output of the light emitted from the GaN semiconductor, when driven at maximum output." It is not clear what is the structure of the GaN semiconductor. It is not clear what is the structural or functional of the spatial filter that capable of eliminating the amount of stray light, when the semiconductor driven at maximum output. Claims 1-5 rejected based on the same reason.

4. Claim 5 recites "the TE mode components". It is not clear what TE mode component is. "abbreviation should not be used without prior disclosure in prior claims."

5. Claim 6 recites a method of eliminating stray light comprising the step of "eliminating, by use of a spatial filter". The claims recite a single step without the recitation as how and what

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the method is carried out in order to produce the single method step as recited in the claims.

Claim 7 rejected based on the same reason.

6. Claims 8, 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim. Claims 8, 9 are being in improper form because a multiple dependent claim may not depend on any other multiple dependent claims. Claims 8, 9 depend on multiple dependent claim 5. See MPEP 608.01(n). Accordingly, the claims 8, 9 have not been further treated on the merits.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or non-obviousness.

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8. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scifres et al. (US 4656641).

With respect to claims 1-5, 7 Scifres et al. '641 shows in figures 1a/b, 2a-h, 3, 4a-J, 5a-d, 6a-d, 7a-d, 8a-b and discloses a light source apparatus comprising: a semiconductor laser (F 1a/b: 12) and spatial filter with a slit hole (F 1a/b: 10, 30, 31; Col 1: 60-67), a focus optical system (F 1a/b: 28), for eliminating stray light (Col 1: 35-46; Col 4: 9-20; Col 8: 55-65). Scifres et al. further discloses that the filter is formed of a partial reflective mirror that partial reflects the light (Col 3-4: 65-9) and the instability of the light based on the shifting of higher operating power and operating temperture. Scifres '641 however did not disclose the semiconductor light emitting element is a GaN type. It is within the general skill of a worker in the art at the time the invention was made to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Since claim 6 recites the same or identical elements/limitations it is inherent to use patents '641 to recite the method of eliminating stray light by use of a spatial filter, product by process.

9. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scifres et al. (US 4656641) in view of Rubin et al. (US 5657335)

With respect to claims 1-5, 7 Scifres et al. '641 shows in figures 1a/b, 2a-h, 3, 4a-J, 5a-d, 6a-d, 7a-d, 8a-b and discloses a light source apparatus comprising: a semiconductor laser (F 1a/b: 12) and spatial filter with a slit hole (F 1a/b: 10, 30, 31; Col 1: 60-67), a focus optical system (F 1a/b: 28), for eliminating stray light (Col 1: 35-46; Col 4: 9-20; Col 8: 55-65). Scifres et al.

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further discloses that the filter is formed of a partial reflective mirror that partial reflects the light (Col 3-4: 65-9) and the instability of the light based on the shifting of higher operating power and operating temperature. Scifres '641 however did not disclose the semiconductor light emitting element is a GaN type. Rubin et al. '335 discloses of GaN semiconductor. It would have been obvious to one of ordinary skill in the art to provide Scifres et al. ('641) the element as taught or suggested by Rubin et al. '335, for the benefit of having light emitting GaN semiconductor.

Since claim 6 recites the same or identical elements/limitations it is inherent to use patents '641 to recite the method of eliminating stray light by use of a spatial filter, product by process.

Citation of Pertinent References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It is cited primarily to show the product of the instant invention.

Leger (US 5627847), Brown et al. (US 4464021), Noguchi et al (US 4832469), Southwell (US006400513B1), Shakuda (US005557115A), Bojarczuk, Jr. et al. (US 5895932)/ (US005898185A), Kamiguchi et al. (US006043515A), Yokoyama (US006124966A), Shin (US006242328B1), Bour et al. (US006345063B1), Waldern et al. (US006407724B2) disclose light source apparatus with filter, focus optical system and GaN semiconductor.

Communication Information

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (703) 605-0756. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Tuan N. Nguyen

April 28, 2003



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